



SHEET 1 of 6

INFORMATION DISCLOSURE
CITATION

PTO-1449

Atty. Docket No.

NTI-029

Serial No.

10/005,615-9717

Applicant

CHANG, Fang-Cheng

Filing Date

11/7/2001

Group 2825

FC 1700

SEP 3 - 2002

RECEIVED

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
W	5,631,110	5/20/1997	Shioiri, et al.	430	5	6/5/1995
	5,682,323	10/28/1997	Pasch, et al.	364	491	3/6/1995
	5,723,233	3/3/1998	Garza, et al.	430	5	2/27/1996
	5,801,954	9/1/1998	Le, et al.	364	488	4/24/1996
	5,815,685	9/29/1998	Kamon	395	500	9/15/1995
	5,825,647	10/20/1998	Tsudaka	364	167.03	3/12/1996
	5,991,006	11/23/0199	Tsudaka	355	53	10/27/1997
	6,049,789	4/11/2000	Frison, et al.	705	59	6/24/1998
	6,081,658	6/27/2000	Rieger, et al.	395	500.22	12/31/1997
	6,081,659	6/27/2000	Garza, et al.	395	500.22	4/26/1999
	6,289,499	9/11/2001	Rieger, et al.	716	21	1/7/2000
	6,243,855 B1	6/5/2001	Kobayashi, et al.	716	19	9/29/1998
	6,249,597 B1	6/19/2001	Tsudaka	382	144	12/17/1998

EXAMINER:

Date Considered:

7/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

NTI Use Only: 759; 150; 1

SHEET 2 of 6

INFORMATION DISCLOSURE CITATION PTO-1449	Atty. Docket No.	Serial No.
	NTI-029	10/005,615-9717
	Applicant	
	CHANG, Fang-Cheng	
	Filing Date	Group
	11/7/2001	2825

RECEIVED
SEP 3 - 2002
TC 1700

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
ND	JP 3-80525	4/5/1991	JP			<input type="checkbox"/>	<input type="checkbox"/>
	WO 00/67074 A1	11/9/2000	WO			<input type="checkbox"/>	<input type="checkbox"/>
	WO 00/67075 A1	11/9/2000	WO			<input type="checkbox"/>	<input type="checkbox"/>
	WO 00/67076 A1	11/9/2000	WO			<input type="checkbox"/>	<input type="checkbox"/>
	GB 2,324,169 A	10/14/1998	GB			<input type="checkbox"/>	<input type="checkbox"/>
	WO 99/14638 A1	3/25/1999	WO			<input type="checkbox"/>	<input type="checkbox"/>

EXAMINER:

Date Considered:

7/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 3 of 4

RECEIVED

SEP 3 - 2002
TC 1700

INFORMATION DISCLOSURE CITATION PTO-1449	Atty. Docket No. NTI-029	Serial No. 10/005,615-9717
	Applicant CHANG, Fang-Cheng	Group 2825
	Filing Date 11/7/2001	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER'S INITIALS	CITATION
W	Ackmann, P., et al., "Phase Shifting and Optical Proximity Corrections to Improve CD Control on Logic Devices in Manufacturing for Sub 0.35 um I-Line", SPIE, Vol. 3051, pp. 146-153, March 12-14, 1997.
	Lithas, "Lithas: Optical Proximity Correction Software" (2 pages).
	Precim, "Proxima System", Precim Company, Portland, Oregon (2 pages).
	Precim, "Proxima Wafer Proximity Correction System", Precim Company, Portland, Oregon (2 pages).
	Rieger, M., et al., "Mask Fabrication Rules for Proximity-Corrected Patterns", Precim Company, Portland, Oregon (10 pages).
	Rieger, M., et al., "Using Behavior Modeling for Proximity Correction", Precim Company, Portland, Oregon (6 pages).
	Cobb, et al., "Fast Sparse Aerial Image Calculation for OPC", SPIE, Vol. 2621, pp. 534-544, September 20-22, 1995.
	Cai, L., et al., "Enhanced Dispositioning of Reticle Defects Using the Virtual Stepper with Automated Defect Severity Scoring", Numerical Technologies, Inc., Advanced Micro Devices, Inc., pp. 1-12.
	Lucas, K., et al., "Model Based OPC for 1st Generation 193nm Lithography", Motorola Inc., IDT assignee to IMEC (12 pages).
	Stirmiman, J., et al., "Quantifying Proximity and Related Effects in Advanced Wafer Processes", Precim Company, Hewlett Packard Labs (9 pages).
	Sugawara, M., et al., "Practical Evaluation of Optical Proximity Effect Correction by EDM Methodology", Sony Corporation (11 pages).
	Ronse, K., et al., "Thin Film Interference Effects in Phase Shifting Masks Causing Phase and Transmittance Errors", IMEC (15 pages).
	Neureuther, A., et al., "Modeling Defect-Feature Interactions in the Presence of Aberrations", University of California Berkeley (10 pages).
	Casey, Jr., J.D., et al., "Chemically Enhanced FIB Repair of Opaque Defects on Molybdenum Silicide Photomasks", SPIE, Vol. 3236, pp. 487-497 (1997).

EXAMINER:

Date Considered:

7/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



RECEIVED

SEP 3 - 2002
TC 1700

INFORMATION DISCLOSURE CITATION PTO-1449	Atty. Docket No. NTI-029	Serial No. 10/005,615-9717
	Applicant CHANG, Fang-Cheng	
	Filing Date 11/7/2001	Group 2825 2826

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
EXAMINER'S INITIALS	CITATION
WD	Yeung, M., "Measurement of Wave-Front Aberrations in High-Resolution Optical Lithographic Systems From Printed Photoresist Patterns", Boston University. pp. 1-27.
	Salch, B., et al., "Reduction of Errors of Microphotographic Reproductions by Optimal Corrections of Original Masks", Optical Engineering, Vol. 20, No. 5, pp. 781-784, September/October 1981.
	Henke, W., et al., "A Study of Reticle Defects Imaged Into Three-Dimensional Developed Profiles of Positive Photoresist Using the Solid Lithography Simulator", Microelectronics Eng., Vol. 14, pp. 283-297 (1991).
	Fu, C.C., et al., "Enhancement of Lithographic Patterns by Using Serif Features", IEEE, Transactions On Electron Devices, Vol. 38, No. 12, pp. 2599-2603, December 1991.
	Ham, Y.M., et al., "Dependence of Defects in Optical Lithography", Jpn. J. Appl. Phys., Vol. 31, pp. 4137-4142 (1992).
	Watanabe, H., et al., "Detection and Printability of Shifter Defects in Phase-Shifting Masks II Defocus Characteristics", Jpn. J. Appl. Phys., Vol. 31, pp. 4155-4160 (1992).
	Harafuji, K., et al., "A Novel Hierarchical Approach for Proximity Effect Correction in Electron Beam Lithography", IEEE, Vol. 12, No. 10, pp. 1508-1514, October 1993.
	Nistler, J., et al., "Phase Shift Mask Defect Printability Analysis", Proceedings Of The Microlithography Seminar INTERFACE '93, OCG Microelectronic Materials, Inc., pp. 11-28 (1993).
	Rieger, M., et al., "System for Lithography Proximity Compensation", Precim Company, Portland, Oregon, September 1993 (28 pages).
	Yan, P., et al., "Effect Of Lens Aberration on Oblique Illumination Stepper System", SPIE, Vol. 1927, pp. 167-180 (1993).
	Spence, C., et al., "Automated Determination of CAD Layout Failures Through Focus: Experiment and Simulation", SPIE, Vol. 2197, pp. 302-313 (1994).
	Stirniman, J., et al., "Fast Proximity Correction with Zone Sampling", SPIE, Vol. 2197, pp. 294-301 (1994).
	Stirniman, J., et al., "Optimizing Proximity Correction for Wafer Fabrication Processes", SPIE, Photomask Technology And Management, Vol. 2322, pp. 239-246 (1994).
	Stirniman, J., et al., "Wafer Proximity Correction and Its Impact on Mask-Making", Bacus News, Vol. 10, Issue 1, pp. 1, 3-7, 10-12, January 1994.

EXAMINER: 27/05/04

Date Considered: 7/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 5 of 6

RECEIVED

INFORMATION DISCLOSURE CITATION PTO-1449	Atty. Docket No. NTI-029	Serial No. 10/005,615-9717	
	Applicant CHANG, Fang-Cheng	TC 1700 SEP 3 - 2002	
	Filing Date 11/7/2001		Group 2825 4236

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER'S INITIALS	CITATION
W	Henderson, R., et al., "Optical Proximity Effect Correction: An Emerging Technology", Microlithography World, pp. 6-12 (1994).
	Barouch, E., et al., "OPTIMASK: An OPC Algorithm for Chrome and Phase-Shift Mask Design", SPIE, Vol. 2440, pp. 192-206, February 1995.
	Karklin, L., "A Comprehensive Simulation Study of the Photomask Defects Printability", SPIE, Vol. 2621, pp. 490-504 (1995).
	Nagahiro, Y., "Improved Mask Technique for Photolithography Applied to 0.25um LSI - Improvement of Resolution, Pattern Correction, Exposure Area", Nikkei Microdevices, pp. 1-6, April 1995.
	Yen, A., et al., "Characterization and Correction of Optical Proximity Effects in Deep-Ultraviolet Lithography Using Behavior Modeling", J. Vac. Sci. Technol. B, Vol. 14, No. 6, pp. 4175-4178, November/December 1996.
	Gans, F., et al., "Printability and Repair Techniques for DUV Photomasks", SPIE, Proceedings Of The 17th Annual Symposium On Photomask Technology And Management, Vol. 3236, pp. 136-141 (1997).
	Ibsen, K., et al., "Clear Field Reticle Defect Disposition for Advanced Sub-Half Micron Lithography", SPIE, Proceedings Of The 17th Annual Symposium On Photomask Technology And Management, Vol. 3236, pp. 124-135 (1997).
	Morimoto, H., et al., "Next Generation Mask Strategy - Technologies are Ready for Mass Production of 256MDRAM?", SPIE, Vol. 3236, pp. 188-189 (1997).
	Park, C., et al., "An Automatic Gate CD Control for a Full Chip Scale SRAM Device", SPIE, Vol. 3236, pp. 350-357 (1997).
	Brunner, T., "Impact of Lens Aberrations on Optical Lithography", IBM J. Res. Develop., Vol. 41, No. 1/2, pp. 57-67, January/March 1997.
	Dolainsky, C., et al., "Application of a Simple Resist Model to Fast Optical Proximity Correction", SPIE, Vol. 3051, pp. 774-780 (1997).
	Chuang, H., et al., "Practical Applications of 2-D Optical Proximity Corrections for Enhanced Performance of 0.25um Random Logic Devices", IEEE, pp. 18.7.1-18.7.4, December 1997.
	Asai, N., et al., "Proposal for the Coma Aberration Dependent Overlay Error Compensation Technology", Jpn. J. Appl. Phys., Vol. 37, pp. 6718-6722 (1998).
	Gotoh, Y., et al., "Pattern Dependent Alignment Technique for Mix-and-Match Electron-Beam Lithography with Optical Lithography", J. Vac. Sci. Technol. B, Vol. 16, No. 6, pp. 3202-3205, November/December 1998.

EXAMINER: [Signature]Date Considered: 7/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 6 of 6

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No. NTI-029 Applicant CHANG, Fang-Cheng Filing Date 11/7/2001	Serial No. 10/005,615-9717 Group 2825 2825
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
W	Gordon, R., et al., "Design and Analysis of Manufacturable Alternating Phase-Shifting Masks", Bacus News, Vol. 14, Issue 12, pp. 1-9, December 1998.		
	Fukuda, H., et al., "Determination of High-Order Lens Aberration Using Phase/Amplitude Linear Algebra", J. Vac. Sci. Technol. B, Vol. 17, No. 6, pp. 3318-3321, November/December 1999.		
	Chen, et al., "ArF (193nm) Alternating PSM Quartz Defect Repair and Printability for 100nm Node", BACUS Photomask Technology, September 21, 2001 (20 pages).		
	Sewell, H., et al., "Aberration Control for Advanced Step-and-Scan Systems Using Pupil Plane Engineering", Optical Microlithography XIV, Proceeding of SPIE, Vol. 4346, pp. 585-594 (2001).		

RECEIVED
SEP 3 - 2002
TC 1700EXAMINER: WJDate Considered: 7/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.